Subject index, Volume 30, 2003

Åkermanite 523
Ab initio quantum mechanics structure refinement 1
Acid sites 243
Activation energy 177
Alpha Fe_2O_3 620
Amphibole 108
Anelasticity 157
Anthophyllite 330
Aragonite 416
Asbestos 177
Atomistic simulation 217

Biotite 559
Bond number 317
Bond strength 317
Brucite 59, 511
Bulk modulus 430

$CaCO_3$–$MgCO_3$ 88
Calcite 416, 440
Calcium carbonate 440
Calcium ferrite 409
Calculation 517
Calibration of the IR-determination of hydrogen in garnets 337
Carbonate minerals 440
Cation distribution 249
Cation ordering 293, 382
Ceramic material 425
Chondrule 503
Chromium-containing muscovite 54
Chromium 546
Chrysotile 177
Clinoptilolite 243
Clinopyroxene, In situ HT powder diffraction 527
Clinopyroxene 430
Cluster 69
CMAS pyrolite 147
Coesite 167
Columbite 590
Compressibility 198
Compression mechanisms 167
Computer simulation 615
Conglomerate 559
Cr K-edge 54
Cr^{3+} spinel 401
Cristobalite 353
Crystal chemistry 599
Crystal structure 198, 206
Cyclic dehydration–rehydration 243

Decomposition products 620
Defects 39
Dehydration 31
Dehydroxylation 59
Density functional theory 517
Density 449
Determination of hydrogen in garnets 337
DHMS phases 1, 147
Diabase 559
Diamagnetic anisotropy 425
Differencial scanning calorimetry 409
Differentiation 449
Diffuse scattering 345
Diffusion bonding 125
Diffusion 486, 536
Diopside 430
Dislocation stability 271
Dislocations 256, 267
Displacive phase–transition 20
Displacive phase–transition 570
Dolomite 39

β-Eucryptite 457
EFTEM and HRTEM 192
Elastic constants 430
Elastic moduli 556
Elastic strain 495
Electron energy-loss spectroscopy (EELS) 469
Electron density 606
Electronic structure calculations 280
Element partitioning 217
Empirical interatomic shell 416
Energy-loss near-edge structure (ELNES) 469
Enstatite 12
Entropy 511
EPR 628, 39, 366
Equation of state 463, 511
Ettringite 31
EXAFS 44
Excitons 393
Exsolution 503

α-Fe_2O_3 582
Fe-bearing garnet 620
Fe^{3+} 366
Fe^{3+} spinel 401
Feldspar dissolution 192
Feldspar 373, 559
Ferrous/ferric ratios 469
Fine structure 330
First principles 88
Fluorescence 478
Fluorite 478
Forced oscillation 157
Forsterite 486, 536, 628
FTIR 330

Gamma radiation 39
Garnet 217, 280
Glass ceramics 98
Grain boundary structure 125
Granite 559

Hartee–Fock 606
Heat capacity 409
Hematite 469, 559
High pressure 1, 147, 167, 256, 267, 449, 463, 582, 615
High temperature 147
Holmquistite 330
HT–XRD 20, 570
HT X-ray diffraction 590
Hydrogen bonding 321
Hydrogen bonds 1
Hydrogen diffusion 12
Hydrous conditions 147
Hydrous olivine 1

γ-Irradiation 59
Illite 382
Incommensurate structures 523
Infrared spectroscopy 12, 457
Infrared 353
In situ heating 401
In situ powder diffraction 177
Interfacial dissolution-reprecipitation mechanism 192
Ion beam luminescence 373
Ionoluminescence 373
IR spectroscopy 108, 243, 495
Iridium 628
Iron 44

K-feldspar 125
Kaolinite 366, 425
Kieffer model 409

Lattice temperature 142
Layer silicates 293
Leached layers and preferential cation release 192
Li–clinopyroxene 20
Li disorder 457
Line-broadening 495
Linear anisotropic elasticity 271
Linear compressibility 582
Lone electron pair 463
Low temperature 523
Luminescence 546

Mössbauer effect 142
Mössbauer spectroscopy 1, 206, 249, 280, 620
Magnetic linear dichroism (MLD) 469
Magma ocean 449
Magma 449
Magnesio-coulsonite 599
Magnetic alignment 425
Magnetic properties 249
Mantle 147, 449
Melilite 523
MgO 157
Mica 198
Micro-creep 157
Micron-sized crystal 425
Mie scattering 98
Minerals 556
Mn^{2+} EPR 59
Mode assignment 353
Molecular dynamics simulation 345
Monte Carlo simulations 293, 382
Montmorillonite 44

Nanostructure 393
Neodymium 440
NMR 243
Normal mode analysis 345
Nuclear reaction analysis of hydrogen 337
Nuclear waste 440

Octahedral 44
Octahedrally coordinated silicon 321
OH-stretching band 330
Olivine 495, 536
Opal 393
Optical absorption spectra 546
Optical absorption spectroscopy 206
Order–disorder 88, 401

Orthorhombic Mg–Fe–Mn–Li amphiboles 330
Oxidation mechanism 620
Oxygen 536

Paramagnetic anisotropy 425
Pb 69
Periodic 69
Phase diagram calculation 88
Phase transition 198, 353, 457, 527
Phase transitions 293
Phengite 293
Photoluminescence 393, 478
Plastic deformation 256, 267
Point defects 486
Polarized Infrared spectroscopy 486
Pressure 198
Pyrite 615
Pyroxene 503
Pyrrhotite exsolutions 185

q vector 523
Quantum mechanics 69
Quartz 345, 559

Radiation centers 546
Raman-Kieffer model 409
Raman scattering 31
Raman spectroscopy 457
Raman 353, 409
Rare-earth 478
Reaction kinetics 177
Recoilless fraction 142
Resonant ultrasound spectroscopy 430
Rh_2O_3 (II) - type structure 582
Rietveld refinement 108

Seismic frequency 157
Shear modulus 430
Shear stress 503
Sheet-Silicate 425
Si–OH 321
Sigmoids 503
Silica 353
Silicate melt 449
Silver 559
Site relaxation 280
Slip planes 271
Slip system 256
Slip systems 267
Sludyanka 599
Smectite 382
Solid solution 495
Solid solutions 217, 280
Sphalerite 185
Spinel 249, 599
Spodumene 606
SRB 559
Steatite 249
Stibnite 463
Structure 167
Sulfate-reducing bacteria 559
Synchrotron radiation 527
Synchrotron X-ray diffraction 582
Synthesis 20, 570

Tektites 393
TEM 256, 267
Thermal decomposition 31
Thermal expansion 590, 321, 511, 527, 556
Thin sections 559
Topaz 546
Transmission electron microscopy (TEM) 469
Tremolite 108
Tschermakite 108
Twins 125

Ultrafast 393
UV-VIS absorption spectra 98

V-magnesiochromite 599
Vermiculite 517
Viscoelasticity 157

Water in nominally anhydrous minerals 1
Water 486

X-ray diffraction 31, 198, 401, 511
XANES spectroscopy 54
XRM 559

(Zn, Fe) S solid solution series 185
Zeolite 243
ZnS 69